



# UNITED STATES PATENT AND TRADEMARK OFFICE

W  
UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR            | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|---------------------------------|---------------------|------------------|
| 10/532,130      | 10/17/2005  | Petri Maki-Ontto                | 034382-002          | 6005             |
| 21839           | 7590        | 07/11/2006                      |                     | EXAMINER         |
|                 |             | BUCHANAN, INGERSOLL & ROONEY PC |                     | NGUYEN, TRAN N   |
|                 |             | POST OFFICE BOX 1404            |                     |                  |
|                 |             | ALEXANDRIA, VA 22313-1404       |                     |                  |
|                 |             |                                 | ART UNIT            | PAPER NUMBER     |
|                 |             |                                 |                     | 2834             |

DATE MAILED: 07/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                        |                     |  |
|------------------------------|------------------------|---------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |  |
|                              | 10/532,130             | MAKI-ONTTO, PETRI   |  |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |  |
|                              | Tran N. Nguyen         | 2834                |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_.
- 2a) This action is **FINAL**.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_ is/are allowed.
- 6) Claim(s) 1,3-5 and 7 is/are rejected.
- 7) Claim(s) 2,6,8 and 9 is/are objected to.
- 8) Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 14 October 2003 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

|  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | Paper No(s)/Mail Date. ____.  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|  | 6) <input type="checkbox"/> Other: ____.                                    |

## **DETAILED ACTION**

### ***Priority***

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Information Disclosure Statement***

The information disclosure statement filed 3/20/05 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed.

**The applicant is hereby request to submit the cited foreign patent Germany 199 48 145 of 06-21-2001, as listed in the IDS.**

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. **Claims 1, 3-5 and 7** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Meyer (US 4,318,020)** or as alternate individual reference **Schuler (US 4,308,476)** in view of **Hill (US 1,784,990)**.

**Meyer** discloses a winding arrangement in an electrical machine comprising: a stator plate core (1) having groove (2) (i.e., winding slot) and insulated from the plate core, wherein

electrical conductive shield (6, 7) is fitted between the winding and the core, said shield comprising a number, particularly 2, parallel strips (6, 7) both mechanically and galvanic ally separated from each other, and the strips essentially cover the bottom and walls of the groove.

Alternately, **Schuler** discloses a winding arrangement in an electrical machine comprising: a stator plate core (10) having groove (i.e., winding slot) and insulated from the plate core, wherein electrical conductive shield (5) is fitted between the winding and the core, said shield comprising a number, particularly 2, parallel strips (5, 5) separated from each other, and the strips essentially cover the bottom and the top walls of the groove.

**Meyer**, alternately **Schuler**, each discloses the claimed invention, except for the limitations of the following:

- (a) the electrically conductive shield strips are either earthed or connected to the plate core,
- (b) the electrically conductive shield strips are formed of aluminum, or
- (c) the electrically conductive shield strips having 0.1mm thickness.

*Regarding the limitations of subsection (a) herein*, **Hill**, however, discloses strips (15) having electrically conductive shield (11) grounded to the groove (i.e., slot) wall so that it provides an electrostatic shield preventing the corona thereof.

Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the stator winding arrangement by configuring the electrically conductive shield strips being earthed, i.e. grounded to the plate core, as taught by Hill. Doing so would enable the electrically conductive shield to provide the electrostatic shield preventing the corona thereof.

*Regarding the limitations of subsection (b) herein*, it would have been obvious to one having ordinary skill in the art at the time the invention was made to select aluminum, as the electrical conductive shield strips. Doing so would provide the shield strips as light material component while aluminum also has relatively high resistance. Also, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its

suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

*Regarding the limitations of subsection (c) herein*, it would have been obvious to one having ordinary skill in the art at the time the invention was made to configure the shield strips having thickness of 0.1 mm. Doing so would ensure proper electrical conductive shield and also proper fit within the accommodating space of the groove for winding, insulating and the shield strips. Also, it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

***Allowable Subject Matter***

**Claims 2, 6, and 8-9** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

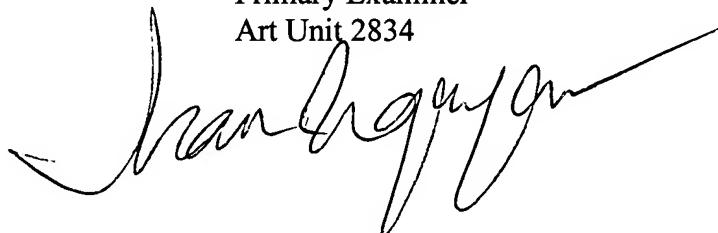
***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tran N. Nguyen whose telephone number is (571) 272-2030. The examiner can normally be reached on M-F 7:00AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on (571)-272-2044. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tran N. Nguyen  
Primary Examiner  
Art Unit 2834

A handwritten signature in black ink, appearing to read "Tran N. Nguyen".